

REMARKS

Claims 11-23 are pending in the application. In the Final Office action dated May 2, 2007, claims 11-23 were rejected. Specifically, claims 11-23 were rejected under 35 U.S.C. § 112, second paragraph; claims 11-18 and 20-23 were rejected under 35 U.S.C. § 102(b) in view of Piretti; and claims 11, 17-20 and 22-23 were rejected under 35 U.S.C. § 102(b) in view of Locher.

Response to the Final action, Applicant submitted an Amendment and Response on August 2, 2007. In the Advisory Action dated August 15, 2007, Applicant was informed that the requested amendments had not been entered, but that the rejection of claim 11 under 35 U.S.C. § 112, second paragraph had been overcome.

Applicant hereby provides an amendment and remarks responsive to the Final action, and the Advisory action. In view of the amendment above, and the remarks below, Applicant respectfully requests reconsideration of the application.

Request for Continued Examination

In order to ensure consideration of the above amendments, Applicant has submitted a Request for Continued Examination under 37 C.F.R. § 1.114.

Rejections under 35 U.S.C. §112

Claims 11-23 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicant regards as the invention. Specifically,

- The Examiner asserts that in claim 11, at lines 10-11, it is unclear as to whether or not the Applicant intends to claim the "mobile joint" in combination with the "seat device".
- The Examiner questions whether at claim 11, line 7, "users" should be --user's--.

- The Examiner questions whether at claim 11, line 8, "mounted in a first end" should be --mounted at a first end--.
- The Examiner suggests that at claim 11, lines 4 and 14, and at claim 22, that the claim should include more positive language.
- The Examiner questions whether the "stoppers" of claim 16 are actually rotational. The Examiner suggests that the claims should not include the phrase "characterized in that".

Without acknowledging the propriety of the Examiner's rejections, and in order to facilitate prosecution of the application, Applicant has amended the claims to address the Examiner's concerns.

Claim 11 has been amended to recite a mobile joint that is "mountable" to a support and a seat device; to recite a "user's weight displacement"; and to recite that the mobile joint is mounted at a first end.

Claims 11-23 have been amended to recite the claimed subject matter more positively. Specifically, claims 11-23 have been amended to remove the phrase "characterized in that".

With respect to claim 16, Applicant notes that as described in the specification (at page 7, lines 15 to 30) and shown in the figures, the "rotational stoppers" serve to cushion the impact of the fitting surfaces at the limits of the rotation of the joint elements at pivoted axles 40 and 50. The stoppers do not themselves rotate. However, Applicant has amended claim 16 to recite that "one or both members of at least one pair of cooperating fitting surfaces (12, 21; 14, 23; 33, 22; 35, 26) is equipped with a stopper (13, 24, 34, 36), wherein the stopper is configured to dampen the impact between the pair of cooperating fitting surfaces when the corresponding joint element is pivoted to the desired point". Support for the amendment is found at page 7, lines 15-30.

Applicant suggests that in view of the amendment, claim 16 particularly and definitely defines the claimed subject matter, and specifically and clearly defines the relationship between the joint elements, cooperating fitting surfaces, and stoppers, particularly when in view of the guidance present in the specification.

In view of the above amendments and remarks, Applicant suggests that claims 11-23 precisely and definitely define the claimed subject matter. Applicant therefore respectfully requests that the rejection of claims 11-23 under 35 U.S.C. § 112, second paragraph, be withdrawn.

Rejections under 35 U.S.C. § 102

Piretti

Claims 11-18 and 20-23 are rejected under 35 U.S.C. § 102(b) as being anticipated by Piretti (U.S. Patent no. 4,909,472). Applicant respectfully disagrees.

The Piretti reference is directed to a pivoting support for chairs, seats, and the like. The support of Piretti includes a main support member which is connected to the base structure of the chair, and a seat support member for pivoting about a horizontal axis (see col. 1, lines 7-13). With reference to the Figures and claims of Piretti, the disclosed pivoting support or mobile joint (4) includes a main support member or joint element (8), a seat support member or joint element (9) and an auxiliary support member or middle joint element (10).

The main support member (8) is mounted at a first end to the support (5) by means of a bush (15) fitted onto the end (17) of a cylinder (18) forming part of the support (5). However, the auxiliary support member (10) is mounted to the main support member (8) immediately in front of the bush (15), where the member (8) is provided with

two bushes (20) being engaged by an articulation pin (21) which is used for the articulation of the auxiliary support member (10) (see col. 3, lines 22-29).

The Applicant therefore respectfully disagrees that Piretti describes a mobile joint having a first joint element (8) being mounted at a first end to a support (5) and at the second end mounted pivotal to a middle joint element (10), as recited in claim 11. On the contrary, the second end of the first joint element according to Piretti is a stop element (8c) constituted by a frontal lip (see col. 4, lines 45-48) cooperating with a stop element (10b) of the middle joint element (10). The two stop elements (8c, 10b) are formed as abutting surfaces defining the outer extreme position of the chair when tilted backwards by the user.

When no pressure is applied to the seat, the resilient means (13, 14) keep the second horizontal axis (12) of the middle joint element (10) in an upward position delimited by the stop elements (8c, 10b). When a user sitting in the chair moves forward in order to tilt the chair forwardly, the second horizontal axis is moved towards the stop element (8c). In order to make the mobile joint according to Piretti pivot, it is necessary to allow free movement of the second end of the joint element (8) in relation to the second end of the middle joint element (10).

Finally, the mobile joint according to Piretti is provided with first and second resilient means (13, 14). The first resilient means (13) are interposed between the main support member (8) and the seat support member (9) for biasing the seat support member towards a position in which it is rotated upwardly relative to the auxiliary support member (10). The second resilient means (14) are interposed between the main support member (8) and the auxiliary support member (10) for biasing the auxiliary

support member towards a position in which it is rotated upwardly relative to the main support member (8). (See col. 1, lines 31-39.)

In other words, when no one is using the chair, the resilient means (13, 14) will bias the chair of Piretti to a "passive" position corresponding to the position shown in Fig. 1. When a user of the chair applies pressure on the mobile joint, it will pivot according to the movement of the user. However, due to the continuous forces applied on the members (8, 9, 10) by the resilient means (13, 14), the joint of Piretti can only assume a stable position under one of three conditions: First, the chair can assume a stable and "passive position" when it is not affected by the weight of the user. Second, when in a maximum forward position (based on the weight of the user, as shown in Fig. 5), such that the upper surface of the stop element (8c) of the main support member (8) abuts a rubber pad (46) carried under the front part of the seat support member. Third, when in a maximum backward position such that a rubber pad (44) carried at the rear by the lower surface of the seat support member (9) abuts a flat abutment plane (45) provided above the bushes (20) of the main support member (8).

In contrast, claim 11, as amended, specifically recites that the claimed mobile joint "assumes a stable tilting position between the two extreme positions when the user's center of gravity is above a point between the first and second rotational axes." Support for the amendment is found generally in the specification, and more particularly at page 5, line 32 to page 6, line 19.

As described in the specification (for example at page 6, lines 11-14), this intermediate position is defined between the axes 40 and 50. The present joint is able to assume three discrete positions: The initial position shown in Figs. 3, 6 and 11; the

intermediate position shown in Figs. 4, 7 and 12; and the extreme position shown in Figs. 5, 8 and 13. This flexibility is achieved by the stepwise activation of the rotation of the joints at the first and second rotational axes 40, 50. In contrast, the joint of Piretti is unable to assume such stable intermediate positions under the influence of the weight of a user. Applicant respectfully suggests that the Piretti reference is incapable of assuming a stable tilting position when the user's center of gravity is between the first and second rotational axes of the Piretti chair.

In addition, due to the design of the presently claimed mobile joint, the joint can assume a number of additional stable tilting positions between the two extreme positions, something the joint of Piretti is incapable of due to the force being continually applied by the resilient means (13,14) of the Piretti joint. Similarly, Piretti in no way defines the distance between the rotational axes (11, 12) of the joint of the reference.

In order to anticipate a claim, the cited reference must disclose each and every element of the claim. As the Piretti reference fails to disclose a mobile joint having a first joint element mounted at a first end to a support, and at the second end mounted pivotal to a middle joint element; and fails to disclose a joint that is structurally able to assume a stable tilting position when the user's center of gravity is between the first and second rotational axes of the joint, Applicant respectfully suggests that Piretti fails to anticipate the subject matter of claim 11. As claims 12-18 and 20-23 depend directly or indirectly from claim 11, Applicant respectfully suggests Piretti similarly fails to anticipate claims 12-23. In view of the above remarks, Applicant respectfully requests the withdrawal of the rejection of claims 11-23.

In the Advisory action dated August 15, 2007, the Examiner questions whether the structure disclosed by the Applicant will allow such a stable intermediate position to be achieved without a locking feature or mechanism. Applicant respectfully suggests that they have provided abundant structural information relating to exemplary mobile joints, including angles and dimensions, and have asserted that the mobile joint is responsive to the shifting of the user's center of gravity, and can assume any of multiple stable tilting positions depending on the posture and position of the user. Although the mobile joint is optionally spring-loaded (see the specification at page 6, lines 20-33), for example using torsion springs (see the specification at page 7, lines 1-5), such mechanisms are not required.

In addition to failing to anticipate the claimed invention, Applicant suggests that Piretti fails to render the claimed subject matter obvious under 35 U.S.C. § 103. As discussed above, the Piretti reference fails to disclose each and every element of the claimed invention. Furthermore, there is no suggestion or motivation to modify the joint of Piretti so as to arrive at the claimed joint, nor is there any description of the substantial advantages possessed by the claimed joint.

In view of the above amendments and remarks, Applicant respectfully suggests that the Piretti reference fails to render the claimed subject matter obvious under 35 U.S.C. § 103.

Locher

Claims 11, 17-20, and 22-23 are rejected under 35 U.S.C. § 102(b) as being anticipated by Locher (U.S. Patent no. 5,209,548). Applicant traverses the rejection.

The Locher reference is directed to an office chair that includes a mobile supporting frame (100) for a seat support or device (75), a backrest support (80) and a standing column or support (10). The frame further includes several joint elements, among others the joint elements (65, 67) being pivotable to a limited degree with respect to each joint element that it is connected to.

The joint element (65) is mounted at a first end to a support member (25) while the tube of the standing column (10) is arranged at the center of the support member (25), (see fig. 6 and col. 4, lines 57-60). In other words, the supporting frame (100) according to Locher is dependent on a further horizontal support member (25), making the support apparatus of Locher far more complicated than the present invention.

The second end of the joint element (65) is mounted pivotal to a middle joint element (68) in a first rotational axis (64). The second joint element (67) is mounted to the seat device (75) and mounted pivotal to a second end of the middle joint element (68). However, the second joint element (67) is made of a rectangular plate provided with two holes (see Fig. 6 for a top view) and a triangular flange being perpendicular to the rectangular plate and provided with one hole (see Fig. 3 for a side view).

Applicant disagrees with the Examiner's assertion that the flange forms one end, while the plate form a second end, as first and second end normally refer to the end portions of an article that is elongate, as is the case with the joint elements (10, 30) of the claimed invention.

Furthermore, when a user is pivoting the supporting frame (100), the first and a third joint element (65, 70) will rotate around the axis X of the support member (25). The seat device (75) is attached to the first joint element (65) by means of the pedestal or

second joint element (67) and to the third joint element (70) by means of a second pedestal (72). Due to this construction, the axes (63, 64) of the second and first joint elements (67,65) will also rotate around the rotational axis X, i.e. vertically and cannot be regarded as being "horizontally displaced in relation to each other", as recited in claim 11.

No stop elements, abutting surfaces or the like are provided on the support frame (100) according to Locher. It cannot be seen that Locher in any way suggests how the chair can assume one or more stable tilting positions between the two extreme positions. In addition, Locher fails to disclose a joint capable of assuming a stable tilting position when the user's center of gravity is between the first and second rotational axes of the joint, as recited in instant claim 11. As Locher fails to disclose each and every element of claim 11, Applicant respectfully disagrees that the chair of Locher anticipates the claimed invention.

As claims 17-20 and 22-23 depend directly or indirectly from claim 11, Applicant suggests they are similarly not anticipated by Locher. Applicant therefore respectfully requests the withdrawal of the rejection of claims 11, 17-20, and 22-23 under 35 U.S.C. § 102.

Conclusion

The mobile joint of the present application is both compact and robust, and permits the construction of chairs that may be tilted to more than two stable positions in a simple manner. None of the cited references, taken independently or in combination, disclose the elements or advantages of the claimed mobile joint.

Applicant believes that this application is now in condition for allowance. Accordingly, Applicant respectfully requests that the Examiner issue a Notice of Allowability covering the pending claims. If the Examiner has any questions, or if a telephone interview would in any way advance prosecution of the application, please contact the undersigned agent of record.

CERTIFICATE OF E-FILING

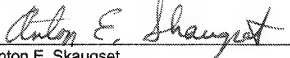
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